

Appl. No.: 09/693,481
Amdt. dated 12/14/2005
Reply to Office action of 12/02/2005

Amendments to the Claims:

1. (Currently Amended) A method for dynamic control of data transfer by a subscriber during an on-going network session, comprising:
 - receiving a data packet at a gateway device;
 - identifying, at the gateway device, a subscriber associated with the data packet;
 - retrieving from memory a subscriber profile that includes subscriber-selected bandwidth;
 - determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth; and
 - adjusting the transfer rate for data packet transmission based on the outcome of the determination process,
wherein the transfer rate for data packet transmission may be adjusted is adjustable by a subscriber at any time during the on-going network session based on adjustment of the subscriber-selected bandwidth during the on-going network session.

2. (Canceled)

3. (Previously Presented) The method of Claim 1, wherin the step of identifying, at the gateway device, a subscriber associated with the data packet further comprises identifying, at the gateway device, a subscriber associated with the data packet by the media access control (MAC) address within the data packet.

4. (Canceled)

5. (Canceled)

6. (Previously Presented) The method of Claim 1, wherein the step of retrieving from memory a subscriber profile that includes subscriber-selected bandwidth further comprises

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retrieving from an Authentication, Authorization and Accounting (AAA) subscriber management interface a subscriber profile that includes subscriber-selected bandwidth.

7. (Previously Presented) The method of Claim 1, wherein the step of retrieving from memory a subscriber profile that includes subscriber-selected bandwidth further comprises retrieving from memory a subscriber profile that includes a first subscriber-selected bandwidth for information being sent to a network and a second subscriber-selected bandwidth for information being retrieved from a network.

8. (Previously Presented) The method of Claim 1, wherein the step of determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth further comprises the step of determining a delay period, if any, for transmitting the packet and wherein the step of adjusting the transfer rate for data packet transmission based on the outcome of the determination process further comprises the step of queuing the data packet for the delay period before transmitting the packet.

9. (Previously Presented) The method of Claim 8, wherein the step of determining a delay period further comprises determining a delay period based upon a byte size of the data packet.

10. (Previously Presented) The method of Claim 8, wherein the step of determining a delay period further comprises determining a delay period based upon a byte size and a time lapse of a most recently transmitted data packet that was associated with the subscriber.

11. (Previously Presented) The method of Claim 8, wherein the step of queuing the data packet for the delay period before transmitting the packet further comprises queuing the data packet for a maximum delay period of 2 seconds.

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12. (Previously Presented) The method of Claim 8, wherein the step of queuing the data packet for the delay period before transmitting the packet further comprises queuing the data packet using a ring buffer.

13. (Original) The method of Claim 8, wherein the subscriber network session is a wireless network session.

14. (Withdrawn) A method for dynamic control of data transfer during an on-going network session, comprising:

receiving a data packet;
retrieving a subscriber priority scheme associated with the data packet;
determining a priority, if any, for transmitting the packet; and
queuing the data packet for delayed transmission.

15. (Withdrawn) The method of Claim 14, further comprising monitoring a rate of data transmission across a network link to determine if the network link is capable of further data transmission.

16. (Withdrawn) The method of Claim 14, wherein queuing the data packet for delayed transmission further comprises queuing the data packet to limit the rate of packet transmission to the network link in response to the monitoring.

17. (Withdrawn) The method of Claim 14, wherein the subscriber priority scheme is based upon the content of the information in the data packet.

18. (Withdrawn) The method of Claim 14, wherein the subscriber priority scheme is based upon a subscriber selected class of service.

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19. (Withdrawn) The method of Claim 14, wherein the subscriber priority scheme is based upon a subscriber selected reservation of a bandwidth block.

20. (Withdrawn) The method of Claim 14, wherein the network session is a wireless network session.

21. (Withdrawn) A gateway device for implementing dynamic subscriber bandwidth management, comprising:

a bandwidth management module that determines if a received data packet will be delayed from further transmission in order to limit the bandwidth of the subscriber to which the data packet is associated; and

a queue for queuing the data packet for a delay period if the bandwidth management module determines that a delay period is necessary.

22. (Withdrawn) The gateway device of Claim 21, wherein the bandwidth management module determines the delay period for data packets that will be queued.

23. (Withdrawn) The gateway device of Claim 21, wherein the bandwidth management module further comprises a subscriber selectable bandwidth module that limits an upstream and downstream bandwidth to that which a subscriber selected.

24. (Withdrawn) The gateway device of Claim 23, wherein the subscriber selectable bandwidth module identifies a predetermined subscriber bandwidth by communicating with an AAA service.

25. (Withdrawn) The gateway device of Claim 21, wherein the bandwidth management module further comprises a traffic shaping module that utilizes the queue for queuing data packets to provide priority bandwidth service to the subscriber.

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26. (Withdrawn) The gateway device of Claim 21, wherein the traffic shaping module further utilizes the queue for queuing data packets in response to the monitoring of rates of transmission at network links.

27. (Withdrawn) The gateway device of Claim 21, wherein the gateway device is in wireless communication with one or more hosts that send and receive the data packets.